

Work Order ID 134545

Wednesday, July 08, 2015 3:19:13 PM

134545

Page 1

Item ID: D412-775-013

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Step Protective Trim

Start Date: 7/03/15 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/07/15 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLJ Date: JUL 10 2015

Tooling:

Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____

Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

DSI 9503

A

IIN D412-775

Rev A

MLJ DEC 03 2015

100

Document Control

0.00

6
9-89

100

DC

Memo

0.00

IX

DAS
28
9-89

DEC 03 2015

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D412-775-013 CHG003

105

Pick Kit

0.00

105

Packaging

Memo

0.00

7
DAS
6
9-89

BAS
27
9-89

DEC 02 2015

Packaging

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐					
OTHER : ☐									

Work Order ID 134545

Wednesday, July 08, 2015 3:19:13 PM

134545

Page 2

Item ID: D412-775-013

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Step Protective Trim

Start Date: 7/03/15

Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/07/15

Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

110

QC4- 100% Inspect kits for completeness

0.00

110

QC

Memo

0.00

Quality Control

1X

DAS
28
9-89

DEC 03 2015

120

Packaging

0.00

120

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D412-775-013
Location: FG028

1X

DAS
28
9-89

DEC 03 2015

130

QC21- Final Inspection - Work Order Release

0.00

130

QC

Memo

0.00

Quality Control

MCS

DEC 03 2015

JIA 2015-03

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Wednesday, July 08, 2015 3:19:12 PM

134545

D412-775-013

Required Date: 7/07/15

Required Qty: 1.00

Comments: IPP Rev:A 08-12-10 new issue DD verified by:ec IPP Rev:B add pick
kit DD 10.02.18 Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3608-1		Manufactured	No			110	Each	9.0000	1	1			
D3608-1									**				
Lower Doubler													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST505		9							
				122733		3							
				130504		6							
D3608-3		Manufactured	No			110	Each	10.0000	1	1			
D3608-3									**				
Upper Doubler													
				<u>Location</u>		<u>Loc Qty</u>		<u>Loc Code</u>					
				ST505		10							
				127544		2							
				130503		6							
				131006		2							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QS1042) Approval	
Description Work Order Deviation				Disposition				Completed By	
Root Cause				FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

DART SERVICE INSTRUCTION
TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-775 REV. A
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-775 REV. 0
REF. TCCA STC SH08-53
REF. FAA STC SR02692NY
REF. EASA STC EASA.IM.R.S.01529

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RETURN TO
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UNCORRECTED COPY
SUBJECT TO INVENT
134545 MGS
1509-10

It has come to Dart's attention that due to variances in airframe, the D3608-1/-3 Lower/Upper Doublers of the D412-775-013 Step Protective Trim Kit at CHG 001 may not always fit as intended. To ensure proper fit, Dart has made changes to both D3608-1/-3 Doublers at CHG 002 and later.
The manuals listed above are amended as follows:

IS:

INSTALLATION INSTRUCTIONS IIN-D412-775 REV. A, SECTION 3.2

3.2.5 Locate the D3608-1/-3 Doublers per Figure 3 and 4 and transfer drill #28 ($\varnothing 0.141"$) holes from the aircraft to the D3608-1/-3 Doublers. Bend tabs on D3608-1/-3 Doublers as shown in Figure 1 of this service instruction and trim rectangular opening as required to fit airframe.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-775 REV. 0, SECTION 53.4

53.4.2 Locate the D3608-1/-3 Doublers per Figure 53-2 and 53-3. If the D3608-1/-3 doublers are being replaced, transfer drill #28 ($\varnothing 0.141"$) holes from the aircraft to the D3608-1/-3 Doublers. Bend tabs on D3608-1/-3 Doublers as shown in Figure 1 of this service instruction and trim rectangular opening as required to fit airframe.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

WAS:

INSTALLATION INSTRUCTIONS IIN-D412-775 REV. A, SECTION 3.2

3.2.5 Locate the D3608-1/-3 Doublers per Figure 3 and 4 and transfer drill #28 ($\varnothing 0.141"$) holes from the aircraft to the D3608-1/-3 Doublers.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-775 REV. 0, SECTION 53.4

53.4.2 Locate the D3608-1/-3 Doublers per Figure 53-2 and 53-3. If the D3608-1/-3 doublers are being replaced, transfer drill #28 ($\varnothing 0.141"$) holes from the aircraft to the D3608-1/-3 Doublers.

NOTE: To avoid sharp edges or interference between the crew door, hinged panel door and step door assemblies, it is acceptable to trim the D3608-1/-3 Doublers to fit.

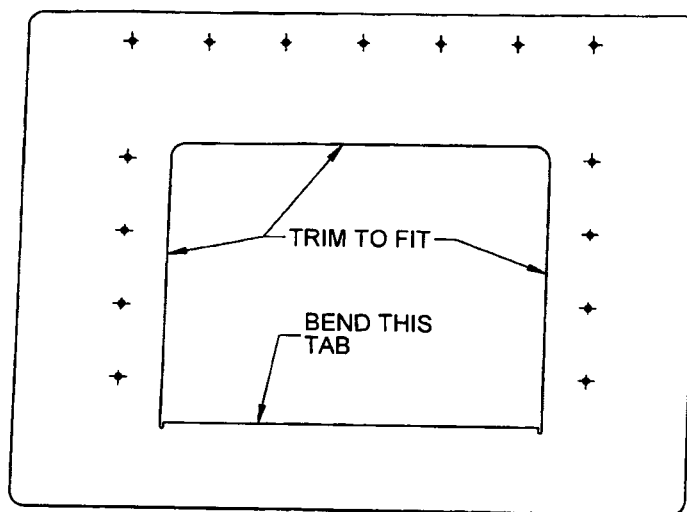
CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

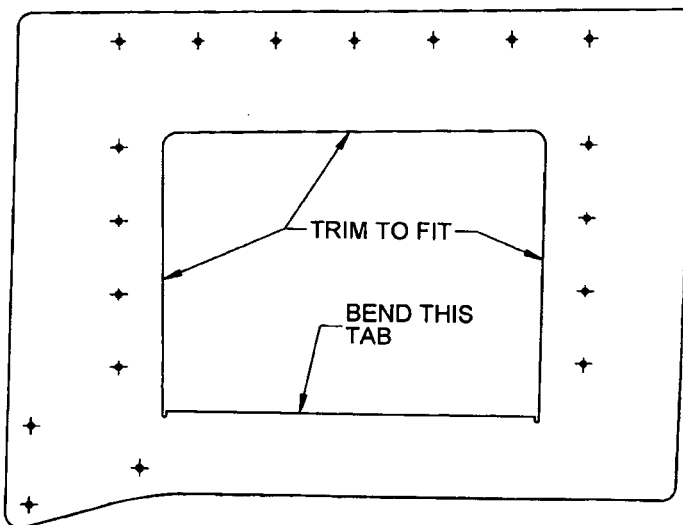
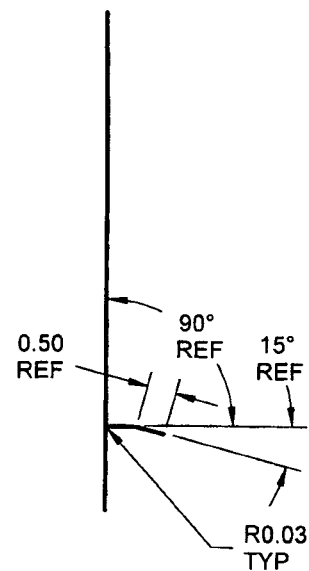
BY: 
D. SHEPHERD (DE # 02)

DATE: 10.02.05
CERT. NO.: SH08-53
ISSUE NO.: 1

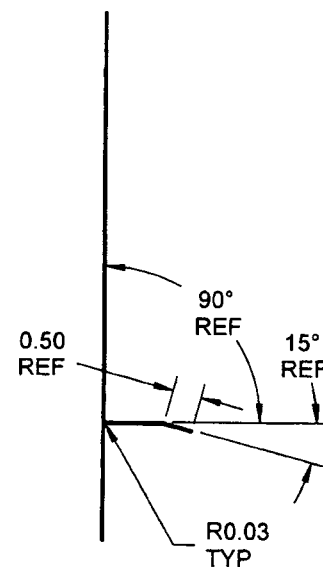
A	NEW ISSUE	MB	10.02.05
REV.		BY	DATE
DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9503	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		STEP PROTECTIVE TRIM CHG NTS	
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D3608-3 BENT UPPER DOUBLER



D3608-1 BENT LOWER DOUBLER



CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 10.02.05
CERT. NO.: SH08-53
ISSUE NO.: 1

FIGURE 1: TRIMMING/BENDING OF D3608-1/-3 DOUBLERS
(PARTS SHOWN PRIOR TO TRANSFER DRILLING)

DESIGN		DART AEROSPACE LTD	
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MFG. APPR.	N/A	DSI 9503	SHEET 2 OF 2
APPROVED		TITLE	SCALE
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53.7 WEIGHT AND BALANCE

DAS
28
P. 30

INSTALLATION	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D412-775-011	1.20 lb	0 in	0 in lb	45.5 in	54.3 in lb
Door Sill Protective Trim Kit	0.54 kg	0 m	0 m kg	1.16 m	0.63 m kg
D412-775-013	1.25 lb	+44.8 in	+56.0 in lb	69.0 in	86.25 in lb
Step Protective Trim Kit	0.57 kg	+1.14 m	+0.65 m kg	1.75 m	1.00 m kg
D412-775-015	1.39 lb	+41.5 in	+57.7 in lb	172 in	239.1 in lb
Fuel Panel Protective Trim Kit	0.63 kg	+1.05 m	+0.66 m kg	4.37 m	2.75 m kg

53.8 PARTS LIST

Qty -011	Qty -013	Qty -015	Part Number	Description
X			D412-775-011	DOOR SILL PROTECTIVE TRIM KIT
	X		D412-775-013	STEP PROTECTIVE TRIM KIT
		X	D412-775-015	FUEL PANEL PROTECTIVE TRIM KIT
2			D3602-1	ANGLE
	1		D3608-1	LOWER DOUBLER
	1		D3608-3	UPPER DOUBLER
		1	D3609-1	DOUBLER

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